



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,434	06/09/2006	Li Yadong	D8888.0001	4874

32172 7590 06/04/2010
DICKSTEIN SHAPIRO LLP
1633 Broadway
NEW YORK, NY 10019

EXAMINER

FONSECA, JESSIE T

ART UNIT	PAPER NUMBER
----------	--------------

3633

MAIL DATE	DELIVERY MODE
-----------	---------------

06/04/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,434	Applicant(s) YADONG, LI	
	Examiner JESSIE FONSECA	Art Unit 3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriau et al. (US 6,490,836).

With regards to claim 1: Moriau et al. discloses a pair of flat clasping floorboard pieces (1) (figs. 22-23 and 25), each floorboard piece having an elongated strip shape; a slot mortise (10) being formed along one of the long sides of each floorboard piece, a tenon (9) provided along the other long side (figs. 22-23 and 25), an upper side wall of the slot mortise (10) having a short end (42) and a lower side wall of the slot mortise having a long end (43); an upper surface of the slot mortise (10) being parallel to and having the same height with an upper surface of the tenon (9); characterized in that a V-shaped groove is provided in a lower surface of the slot mortise (10) and a corresponding convexity (33) is provided on a lower surface of the tenon (9); the convexity (33), in an insertion direction of the tenon (10), has an anti-self-locking oblique surface (76) formed on a front end thereof; the anti-self-locking oblique surface (76) forms a first angle with an upper surface of the floorboard strip; a corresponding oblique surface (83) is formed on an external surface on the long end of the lower side wall of

Art Unit: 3633

the slot mortise (10) to engage with the anti-self-locking oblique surface (76) of another floorboard of the pair of floorboard pieces; a rear end of the convexity (33) matches with an external side surface of the V-shaped groove of the another floorboard to form a self-locking surface, which forms a second angle (A) with the upper surface of the strip; the second angle ranges from 30-70°; and the external shape of the tenon (9) corresponds with the shape of the slot mortise (10) (fig. 23 and 25),

Moriau et al. discloses the oblique surface (76) forms a first angle with the upper surface of the floorboard piece (1), but fails to disclose the first angle ranging from 15-35°.

Moriau et al. appears to disclose a first angle between 15-35°. Note the first angle is smaller to that of the second angle (A) which is disclosed to be in the range of 30-70°. However, Moriau et al. does disclose the oblique surface (83) and corresponding oblique surface (83) are angled to provide a smooth shifting of locking elements over one another (fig. 25) (col. 11, lines 39-48 and col. 12, lines 24-28).

Given the disclosure of Moriau et al., it would have been obvious matter of design choice to one of ordinary skill in the art at the time of the invention was made to change the size/dimensions of the first angle to have desired value, such as the claimed first angle between 15-35°, in order to provide a desired degree of lockability and a smooth shifting of locking elements over one another for ease of installation. No new or unpredictable results would be expected from having a first angle 15°-35°, it appears the invention would perform equally well with a first angle value (i.e. 36°) outside of the claimed range.

Moriau et al. further discloses the upper surface of the slot mortise (1) overlaps the upper surface of the tenon (9) of the another floorboard before the self-locking surface is formed as the pair of floorboard pieces are attached horizontally relative to each other (fig. 25).

Moriau et al. does not explicitly disclose the upper surface of the slot mortise overlaps the upper surface of the tenon of another floor prior to deflection of the lower surface of the slot mortise. Moriau et al. further fails to disclose the distance is no less than 1-2 mm.

However, Moriau et al. does disclose the front extremity of the tenon (9) is shaped to extend into slot mortise so as to prevent the front extremity from pressing against the front side of the short end (M) of the slot mortise (col. 12, lines 5-15).

Examiner submits there will inherently be an overlap of the tenon and mortise prior to any deflection as the force exerted on floorboard piece by the user is that of a horizontal force (fig. 25). From a physics perspective, in order for the lower portion of the slot mortise to deflect, a portion of the tongue must be inserted in the slot mortise prior to deflection as it is the leverage of the tongue and the upper surface of the slot mortise that causes the deflection of the lower surface of the slot mortise. Note Moriau et al. discloses the floorboard piece is installed laterally (fig. 25); therefore no vertical forces would be applied by the user during installation.

It would have obvious matter of design choice to one of ordinary skill in the art at the time of invention to change the size/proportion of the overlap distance of the upper surface of the slot mortise and the tenon of the another floorboard to extend without

Art Unit: 3633

deflection of the lower surface of the slot mortise of the floorboard piece and before the self-locking surface is formed between the floorboard pieces in order to provide a flooring structure with a tenon end or front extremity that properly guides the tenon into the slot mortise without pressing against the short end of the slot mortise. No new or unpredictable results would be expected from having an overlap distance of 1-2 mm, it appears the invention would perform equally well with an overlap (i.e. 3mm) outside of the claimed range. *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

With regards to claim 2: Moriau et al. discloses everything previously mentioned, including the long end side wall of the slot mortise (10) being longer than the short end sidewall, but fails to disclose the long end side wall is 2-4mm longer than the short end wall.

However, it would have been an obvious matter of design choice to one of ordinary skill in the art at the time of the invention to adjust the proportions of the floorboard piece in order to provide a floorboard structure that is stable and safe when joined to similar floorboard structures, no new or unpredictable results would be expected from having a long edge side wall 2-4mm longer than the short end wall. Examiner notes the floorboards of Moriau et al. includes a similar structure and is

Art Unit: 3633

installed in the same manner as applicants. *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Response to Arguments

The objection of claims 1-2 have been withdrawn in view of the amendment filed 3/29/10.

The rejection of claims 1-2 under 112, 1st and 2nd paragraph has been withdrawn in view 3/29/10.

Applicant's arguments filed 3/29/10 have been fully considered but they are not persuasive.

Applicant argues that Moriau et al. discloses the lower portion of the mortise deflects prior to any overlap.

Examiner respectfully disagrees, it is submitted that there will inherently be an overlap of the tenon and mortise prior to any deflection as the force exerted on floorboard piece by the user is that of a horizontal force. From a physics perspective, in order for the lower portion of the slot mortise to deflect, a portion of the tongue must be inserted in the slot mortise prior to deflection as it is the leverage of the tongue and the

Art Unit: 3633

upper surface of slot mortise that causes the deflection of the slot mortise. Note Moriau et al. discloses the floorboard piece is installed horizontally; therefore no vertical forces would be applied by the user during installation.

Applicant argues that Moriau et al. fails to disclose the 1-2mm prior to deflection of the lower surface of the slot mortise when attached horizontally to another floorboard piece, which is critical to preventing floorboard breakage during assembly.

Examiner submits that although Moriau et al. fails to disclose the claimed 1-2 prior to deflection, Moriau et al. does disclose the tongue 9 is shaped so as prevent the tongue from pressing again the upper lip 42 or the front edge of the bottom limp 43 (col. 12, lines 13-23). As previously noted, an overlap of the tongue and slot mortise will occur prior to deflection. Regarding the claimed range, there appears to be no criticality for claimed overlap range that will cause the floorboard pieces perform differently from a value outside the range. Examiner submits an overlap of 3mm would be expected to perform in a similar manner to applicant's claimed range, no new or unprintable results would be expected. Further, Examiner notes the floorboards of Moriau et al. are of similar structure and are installed and perform in a similar manner to applicant's floorboards. To have changed the dimensions/size of the floorboard to provide ease of assembly and/or desired degree of lockability would have been obvious matter of design choice to one of ordinary skill in the art at the time invention was made. *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative

Art Unit: 3633

dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSIE FONSECA whose telephone number is (571)272-7195. The examiner can normally be reached on M-F 7:00am-3:30pm.

Art Unit: 3633

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Dunn can be reached on (571)272-6670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. F./
Examiner, Art Unit 3633

/Robert J Canfield/
for D. Dunn, SPE of Art Unit 3633